STATISTICS 350-3
LINEAR MODELS IN APPLIED STATISTICS

Fall 2005
DAY COURSE

Instructor: Dr. T. Swartz

Prerequisites:

STAT 285 and MATH 251.

Textbook:

Supplementary Text - *Applied Linear Regression* (2nd Edition) by Sanford Weisberg, Wiley

Calendar Description:

Theory and application of linear regression. Normal distribution theory. Hypothesis tests and confidence intervals. Model selection. Model diagnostics. Introduction to weighted least squares and generalized linear models.

Outline:

1. Linear models. Matrix notation, examples of linear and non-linear models. Fitting linear models to data. Least squares. Geometrical interpretation